

Revitalization of Economic and Financial Possibility through Tourism Sector in Jatigede Dam, Sumedang Regency, West Java Province

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ABSTRACT

The revitalization of economic and financial potential through the tourism sector at Jatigede dam is an important initiative to encourage local economic growth. This study examines the impact of dam construction on the tourism sector and the resulting cost efficiency, both in terms of infrastructure development and promotion. While Jatigede Dam has great potential to become a leading tourism destination, constraints such as limited accessibility and lack of supporting facilities hinder the realization of the expected economic benefits. Qualitative and quantitative analyses were conducted to quantify the social, economic, and environmental impacts of the project, as well as provide strategic recommendations to improve cost-effectiveness, accessibility, and tourism attractiveness in the long term.



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INTRODUCTION

Dams play a strategic role in water resources management in many countries, especially in the face of the challenges of climate change and seasonal fluctuations. With their main function as water storage, dams are an important solution in providing a stable water supply for irrigation, industrial and domestic needs. In countries that often face long dry seasons or erratic rainfall, dams are key to maintaining water security and preventing drought crises. In addition, dams also play a vital role in flood control, especially in the era of climate change, which is increasing the frequency and intensity of flood disasters.(Khan, 2021)

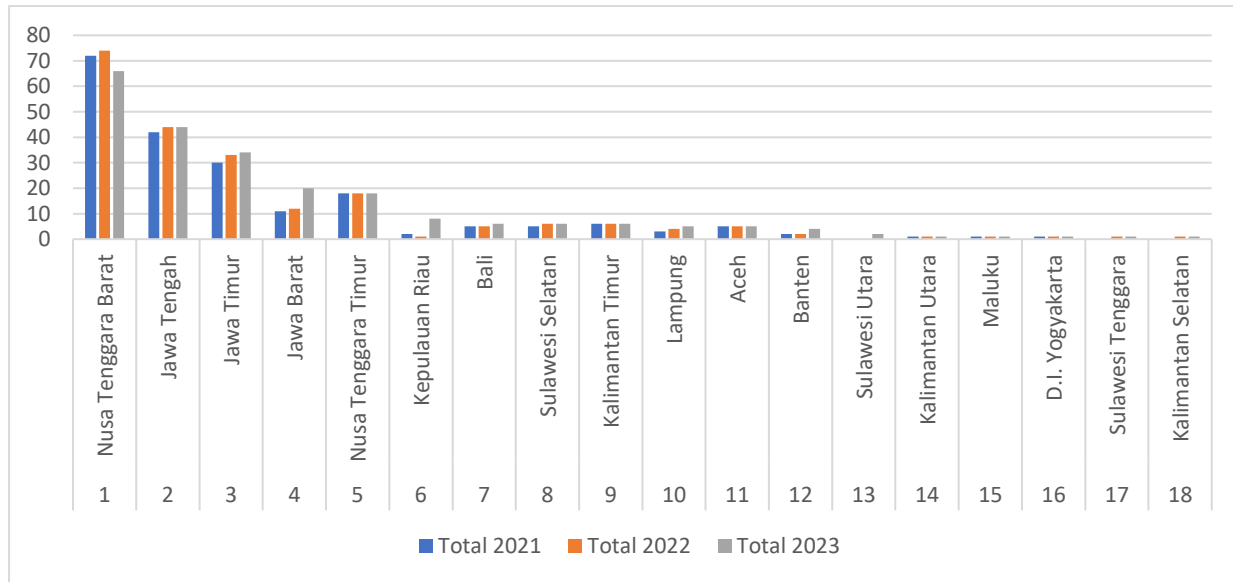
Not only limited to water management, dam construction is now also an important part of supporting the renewable energy transition, particularly through hydropower generation.(Liu, 2022) In this context, dams are not just infrastructure facilities, but also local economic drivers. The construction and operation of dams create jobs, boost the agricultural sector through stable irrigation, and open up new opportunities in the tourism sector.(Silva, 2021) In Indonesia, as a country with high rainfall, dams play a vital role in meeting water and energy needs, while adapting to the impacts of climate change.

However, dam construction is not without its challenges. The development process often involves population relocation, ecosystem changes, and other socio-economic impacts that need to be managed wisely. The importance of a holistic approach in designing dam management policies, including community participation and environmental impact assessments, is key to ensuring that the benefits of dams can be maximized, both from an ecological, economic and social perspective.(Rodzi, 2023) Jatigede Dam in West Java, as one of the major dam projects in Indonesia, is an example of how this infrastructure is expected to bring positive impacts to the surrounding community, not only in terms of water and energy management, but also in the development of the tourism sector.

The Directorate General of Water Resources, which is an organizational unit of the Ministry of PUPR, is tasked with formulating and implementing policies in the field of water resources management in accordance with the provisions of Permen No. 13/PRT/M/2020. The importance of organizing infrastructure development that supports sustainable water resources management includes dams. Equally important, dam construction must also consider social and environmental impacts. Community relocation, habitat loss, and ecosystem changes are challenges that must be carefully managed. Therefore, community participation and comprehensive environmental impact assessments must be an integral part of the planning and implementation of dam projects. With a holistic and sustainable approach, dams can provide maximum benefits to communities and the environment.

The distribution of dams in Indonesia has increased every year, as can be seen in the following graph:

Data on the distribution of operating dams in Indonesia



Source: Thematic Geospatial Information of the Ministry of PUPR, December 31, 2023

Since 2014 the construction of dams began to be prioritized after being designated as a national strategic project, dams have become state property included in the use status determination cluster and are considered not so important. In reality, there are always direct and indirect impacts from social, environmental and even economic aspects. Dam assets are expected to create irrigation security, flood control, encourage tourism potential, develop hydropower energy, encourage the opening of new types of jobs and others. (Arif, 2022). The importance of seeing social, economic and environmental impacts through the measurement of state property is based on the regulation of the minister of finance no. 349 / KM.6 / 2018 concerning Procedures for Implementing Performance Evaluation of State-Owned Entities.

The implementation of PMK No. 249/KM.6/2028 emphasizes more on the economic aspect, by considering the economic value of state property. Basically, to assess an impact, it is important to measure policy performance holistically. Dam development in Indonesia is related to the formation of social capital in the long term, the construction of dams sometimes causes short-term social distortions, but in the long run the distortions will be reduced through the process of social adaptation and end up in the formation of new social capital. The formation is built from the utilization of assets (state property) of dams, such as the development of the tourism sector for community cultural empowerment, the provision of raw water and irrigation in the region, flood control and hydropower generation.

The impact of dams has the potential to provide benefits by reducing poverty and improving welfare and indirectly stimulating the formation of social capital in the long term. Dam assets can also be disruptive, which has implications for government policy by maximizing the positive and mitigating the risk of negative impacts. (Sinthumule, 2021).

It is important to create governance in planning, monitoring dam policies in Indonesia that are oriented towards the principles of sustainability and justice.

Until now the construction of dams in several provinces continues, the largest dam in Indonesia is located in West Java Province, namely the Jatiluhur dam which was built in 1957 and the Jatigede dam which operated on August 31, 2015. These dams have multifunctional benefits, not only providing water for irrigation, the tourism sector, flood control, supplying raw water and also generating electricity through hydroelectric power plants. The Indonesian government continues to build new dams to meet the increasing demand for water and energy. One of the major projects in the pipeline is the Jatigede Dam in West Java, which is expected to irrigate thousands of hectares of farmland and provide raw water for several cities. This project demonstrates the government's commitment to improving water resources infrastructure.

The idea of Jatigede dam construction was first initiated in 1963 and only realized the acceleration of development in 2015 through Presidential Regulation No. 1 of 2015 which specifically regulates compensation. Through the Perpres, it became the initial gate to accelerate the construction of the Jatigede dam, whose construction process was quite long and only operated on August 31, 2015. (Wahidah et al., 2019). The challenges in managing the Jatigede dam are many, starting from land acquisition for inefficient development that requires relocation of residents and can change the local ecosystem with a long duration of time and a lot of budget. Therefore, community participation and comprehensive environmental impact assessments should be an integral part of planning and implementation.

The construction of the Jatigede dam is considered a very important thing to do immediately because it has important implications for the economic development of the community, so the first thing the Sumedang Regency government did was the establishment of a tourist area around the Jatigede dam. Although the main purpose of the construction is for hydropower with a magnitude of 110 MW, flood control and irrigation facilities for a range and 90,000 Ha of raw water for downstream areas covering Sumedang, Majalengka, Cirebon and Indramayu Regencies.

The government needs to ensure that the negative impacts are minimized and the benefits can be felt by the wider community. (Tsikalakis, 2023). Overall, Jatigede dam plays a crucial role in water resources management, irrigation, flood control and power generation. In fact, the local government has made Jatigede dam a mainstay of the tourism sector. Although there are various challenges to be faced, with good planning and management, the dam can continue to provide great benefits to the community and economic development. (Hongsuwan, 2022). The construction of Jatigede dam is the government's commitment in realizing the strategic plan from the aspect of economic development.

Jatigede development has not provided significant benefits both for the community and for the region (Salleh, 2023) irrigation for agriculture has not been maximized because the water discharge from the river flow is quite small and unbalanced

between *inflow* and *outflow*. Jatigede dam hydropower plant has not been able to operate efficiently considering that the progress is only at the stage of *Performace Test* and *Reliability Run* unit 1 and unit 2, this stage is the final stage before obtaining a Certificate of Operation (SLO). The tourist area around the Jatigede dam is quite a lot and has enough potential to be developed, but currently it has not been maximally felt for the economic development of the community and also regional income due to poor road access. The target for 2024 is good access to the tourist area with budget support from the local government of Sumedang Regency and BBWS Cimanuk-Cisanggarung Kamenterian PUPR.

The development of Jatigede dam is expected to have many benefits that go beyond its function in water management and also hydropower, so the Sumedang Regency government developed the tourism sector through water creation activities, a destination that can enjoy the scenery supported by various facilities. Jatigede Dam was created as an artificial lake that is quite large and can be utilized with various recreational activities such as playing in boats, fishing and swimming. In addition, visitors can enjoy the beautiful natural scenery. Many facilities have been deliberately built to support the tourism sector while helping to promote it. Currently, there are several tourist destinations that build cooperation with third parties or the tourism industry in tourism development to attract local and foreign tourists to visit.

The establishment of several tourist areas around the Jatigede dam has been carried out using the regional budget and also the village budget, even efforts made through mapping tourist locations, tourism categories and even up to the stage of tourism promotion of the Sumedang Regency government are quite active. Promotion is carried out through various official government digital platforms, private social media and several large events organized specifically by the local government.

The Jatigede dam development policy has many obstacles, so that the benefits of the existence of the dam have not been felt optimally, this is closely related to the importance of determining instruments in designing a policy so that it is able to calculate costs and time with the benefits obtained in implementing the policy. Then, it will be easy to evaluate a policy that is productive and counter-productive for the public interest. (Chen, 2021). The number of policies aimed at the needs of the community is the opposite and can burden the community, the importance of instruments in developing several effective, credible and responsive public interest-oriented policies. The purpose of this research is to analyze in depth the process of revitalizing economic and financial possibilities through the tourism sector at Jatigede Dam, Sumedang Regency.

METHODOLOGY

The research focuses on the revitalization of economic and financial possibilities through the tourism sector in Jatigede Dam, Sumedang Regency using a structured research method. Based on the scope of the study, it adopted a mixed methods approach by integrating qualitative and quantitative analysis. The aim was to assess in-depth the

economic impact of Jatigede Dam on the community. Primary data collection consisted of structured questionnaires, in-depth interviews and field observations. (John W. Creswell, 2019) While secondary data through document review of official reports and academic studies on Jatigede dam by contextualizing the impact, in addition to using statistical data through comparative analysis of trends before and after dam construction to see economic, social and environmental shifts.

Sampling in this study used purposive sampling to target stakeholders (BAPPEDA physical section, Public Works and Spatial Planning Office, Disparbudpora, PLN, private parties involved, Jatigede sub-district and Tourism Village). Sampling was also conducted randomly to the community and visitors to find out their perspectives to support research data. Data analysis was conducted quantitatively, namely regression analysis to examine the relationship between Jatigede dam construction and key economic indicators (local income levels and number of visitors), then time series analysis by comparing data before and after dam construction. As for qualitative analysis through content analysis to help understand unquantifiable impacts such as social cohesion and community resilience, in addition to thematic analysis by interpreting qualitative data, focusing on community challenges, resilience strategies, and long-term sustainability of tourism development. (Huberman, 1992)

RESULTS AND DISCUSSION

Revitalization is a strategic process that involves an in-depth evaluation of stagnant or sub-optimal programs to adjust to the latest needs, in terms of technology, policy, and social change. According to Korten, revitalization emphasizes that it should focus on the active participation of key stakeholders to ensure the sustainability and success of the program. (Diaz-Sarachaga, 2020) It also highlights the importance of adjusting the vision and mission of the program to the dynamic external environment, which will help the organization remain competitive and relevant in the ever-changing market. (Zhou, 2021)

Policy evaluation in the Bardach framework focuses more on analyzing the results and impacts of policies that have been implemented. This evaluation not only focuses on achieving the desired results, but also considers unforeseen impacts and costs that arise during the implementation process. In Bardach's typology, policy evaluation allows for a more in-depth analysis of policy effectiveness, efficiency and equity criteria. (Akib, 2010) Thus, evaluation can provide important input for future policy improvements, both through adjustments in implementation and more fundamental changes in policy formulation. (Anggara, 2018) There are four criteria for the standard assessment of a policy, including technical feasibility, economic and financial feasibility, political feasibility and administrative feasibility. This research focuses on the standard assessment of economic and financial possibilities with sub-criteria of economic efficiency, profitability and cost effectiveness. (Tachjan, 2006)

Economic Efficiency of Jatigede Dam, Sumedang Regency

Economic efficiency in the development of the tourism sector at Jatigede Dam is one aspect that is of major concern. Theoretically, the development of tourist destinations around this dam has great potential to boost the local economy. However, in reality, the expected positive impact of this dam tourism has not been maximized. One of the main obstacles faced is the limited accessibility. The road infrastructure to the tourist area is not yet optimal, making it difficult for tourists to visit, especially for those who come from outside the region. This condition causes the number of tourist visits to Jatigede Dam to not match expectations.

In addition to accessibility issues, supporting facilities around the dam are also not well developed. Although there have been several events organized in the area, such as music festivals and fishing competitions, these events have not been able to sustainably increase economic efficiency. Many visitors come only when the event takes place, while on weekdays, this tourist area is empty of tourist activities. This suggests that more systematic promotion and management are needed to optimize the tourism potential of Jatigede Dam. The local government has planned road access improvements and facility development with a target completion date of 2024, which is expected to increase the number of visits and contribute more to the local economy.

Profitability Sector Economic Efficiency Jatigede Dam Sumedang Regency

The profitability of the tourism sector in Jatigede Dam has also not reached an adequate level, despite its considerable potential. This area actually offers a variety of interesting natural attractions, such as a wide panorama of the dam, boating activities, fishing, and soothing natural scenery. However, the economic benefits generated from this tourism sector are still relatively minimal. This is due to several factors, including the lack of adequate tourist facilities and promotion that has not been maximized to attract tourists, both local and foreign.

The Sumedang Regency Government has made several efforts to increase tourist attraction at Jatigede Dam, one of which is to collaborate with third parties in the management of tourist attractions. This collaboration is expected to attract more investment for the development of facilities, such as lodging, restaurants, and other recreational areas, which can increase the comfort of tourists during their visit. In addition, tourism promotion through various digital platforms and social media is also increasingly encouraged, with the hope of making Jatigede Dam a leading tourist destination in West Java. If this infrastructure and promotion are successfully improved, then the Jatigede Dam tourism sector has the potential to provide significant economic benefits, both in the form of regional income and the creation of new jobs for the surrounding community.

Cost Effectiveness Economic Efficiency Jatigede Dam Sumedang Regency

Cost effectiveness in managing the tourism sector at Jatigede Dam is an important aspect that must be considered. Currently, the investment that has been made for the development of tourist areas, especially in terms of infrastructure development and promotion, has not been proportional to the income generated. Although there have been efforts to increase tourist attraction, the results obtained have not provided optimal returns. The costs incurred in organizing tourism events such as festivals and competitions have not had a significant impact on increasing the number of visits and profitability of this tourism sector.

To improve cost-effectiveness, more strategic measures need to be taken, including optimization of existing resources and efficiency in budget use. The Sumedang District Government, along with other relevant parties, should ensure that any investments made are well-planned and focused on long-term outcomes. The development of tourist facilities, improved accessibility, as well as more targeted promotion will be key in improving cost-effectiveness in the Jatigede Dam tourism sector. With the right strategy, the investments that have been made are expected to provide significant returns and make this tourism sector one of the pillars of a sustainable regional economy.

In addition, a sustainable management program is also very important to preserve the environment around Jatigede Dam. Sustainable tourism will not only attract tourists, but also ensure that the area can still be enjoyed by future generations. The government needs to work with local communities in maintaining the ecosystem around the dam, including waste management and preservation of water resources. With this approach, long-term cost-effectiveness will be more assured, as a well-managed tourism area will continue to provide economic benefits to the community and the region.

Many countries have implemented the use of instruments in making policies with an *evidence base* to produce much better policies, but the application has not been widely done in Indonesia. The existence of Jatigede dam, whose benefits have not been maximally felt, is important to be analyzed in depth by looking empirically related to the impact in terms of costs and benefits. The importance of assessing the impact of Jatigede dam through quantitative and qualitative analysis to assess the advantages and disadvantages of a policy using *instruments for quality improvement*.

Jatigede Dam has utilized the area as a venue for various events and festivals, such as fishing competitions, music festivals and Sumedang Regency art displays. These events aim to not only attract visitors but also create a lively and fun atmosphere, reinforcing the image of the dam as a vibrant tourist area. (Bernardo, 2022). It is hoped that like world-renowned dams, tourism around the dam can also increase people's awareness and appreciation of the importance of water and environmental conservation. (Saha, 2024). Through educational programs and interpretive activities, visitors can learn about the importance of dams in water resource management, flood protection, and hydroelectric energy production, thereby encouraging more environmentally responsible actions among tourists and the wider community. In reality, the festival did not have a significant

influence on the attraction of tourists visiting the Jatigede dam area, local people and visitors came only when the event took place.

CONCLUSION

The economic efficiency of Jatigede Dam has great potential to boost the local economy through the tourism sector, the realization of which is still far from optimal. The main obstacles faced are limited accessibility and lack of adequate supporting facilities. In addition, the promotion has not been systematic enough so that the tourist attraction in this dam has not been able to achieve the expected results. The Sumedang Regency Government plans to improve infrastructure and develop facilities in the hope of increasing tourist visits and providing a more significant economic impact. Cost-effectiveness in the management of the tourism sector at Jatigede Dam is also inadequate, the investment made, especially in infrastructure development and promotion, has not been proportional to the income generated. In order for the tourism sector in this dam to develop sustainably, strategic steps are needed such as careful planning, efficient resource management, and collaboration with local communities in maintaining environmental sustainability. With the right approach, it is expected that the Jatigede Dam tourism sector can make a significant contribution to the regional economy.

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